FINAL
NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD
MEETING SUMMARY

www.bracpmo.navy.mil
Building 1, Suite 140, Community Conference Center
Alameda Point
Alameda, California

December 4, 2008

The following participants attended the meeting:

Co-Chairs:	
Patrick Brooks	Base Realignment and Closure (BRAC) Program Management Office (PMO) West, BRAC Environmental Coordinator (BEC), Navy Co-chair
George Humphreys	Restoration Advisory Board (RAB) Community Co-chair
Attendees:	
Anna-Marie Cook	U.S. Environmental Protection Agency (EPA)
Tommie Jean Damrel	Tetra Tech EM Inc.
Fred Hoffman	RAB
John Kaiser	San Francisco Regional Water Quality Control Board (Water Board)
Joan Konrad	RAB
James Leach	RAB
Dot Lofstrom	California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC)
Gretchen Lipow	Community member
Frank Matarrese	Alameda City Council
John McMillan	Shaw Environmental, Inc.
Marcus Simpson	DTSC Public Participation Specialist
Dale Smith	RAB
Radhika Sreenivasan	St. George Chadux Corp.
Jean Sweeney	RAB
Jim Sweeney	RAB

Michael John Torrey	RAB
John West	Water Board
Tyson Wislofsky	St. George Chadux Corp.

The meeting agenda is provided in Attachment A.

MEETING SUMMARY

I. Approval of Previous RAB Meeting Minutes

Mr. Humphreys called the meeting to order at 6:40 p.m.

Ms. Smith provided the following comments on the October RAB meeting minutes:

- Page 4 of 12, third paragraph, sixth sentence, "…and added that, as volunteers, the meeting would be prolonged….." will be changed to, "….and added that, as volunteers, the meeting should be prolonged...."
- Page 7 of 12, first paragraph, last sentence, "The four RAB members also suggested improving notification or elaborating on the Navy's Plan" will be revised to, "The RAB members also suggested improving notification or elaborating on the Navy's plan."
- Page 10 of 12, first paragraph, first sentence, "Mr. Brooks agreed and said that the anomalies…" will be revised to, "Mr. Brooks said that the anomalies…."

The approval of minutes was left open for discussion until January, when Dr. Peter Russell will attend.

Mr. Humphreys provided the following comments on the November RAB meeting minutes:

- Page 4 of 11, number item 5, "Whether the panhandle section of the federal transfer parcel that lies between Sites 1 and Site 2 had been surveyed for Record of Decision (ROD) activities" will be revised to, "Whether the panhandle section of the federal transfer parcel that lies between Site 1 and Site 2 had been surveyed for radioactive impact of soil."
- Page 4 of 11, second paragraph, third sentence, "Mr. Brooks responded that the budget is for fiscal year 2008 and that the fiscal year 2009 budget has not yet been awarded" will be changed to, "Mr. Brooks responded that the budget is for fiscal year 2008 and that the fiscal year 2009 budget ($41.5 million) has not yet been fully obligated."

The November minutes were approved as modified.

II. Co-Chair Announcements

Mr. Humphreys distributed the list of documents and correspondence received during November 2008 (Attachment B-1). Mr. Humphreys noted that document item 8 is the latest annual basewide groundwater monitoring report. He said that two volumes of this report have been received.

Mr. Humphreys noted that correspondence item 1 is the city's letter on the conceptual site model for Site 1. The city's letter said that Area 1a should be moved from Site 1 to Site 32 and thoroughly characterized and that there was no evidence that any waste was deposited at the site. Mr. Humphreys said that in view of the AMEC's presentation last month, his opinion is that the Navy has not accepted the city's suggestion and is proceeding with the investigation on the basis of the Navy's previous encounter with waste material during exploration of the soil cover depth while the depth of the soil cover over the landfill was explored.

Mr. Humphreys noted that correspondence item 2 is the EPA comment letter on the data gap sampling at Operable Unit (OU) 2A and 2B, which is east of the Seaplane Lagoon. Mr. Humphreys itemized the EPA comments.

1. The bay sediment unit is not continuous. The first and second water-bearing zones should not be considered as being separate because they are mixed together.
2. The zero-valent iron (ZVI) would be ineffective in treating the dense nonaqueous phase liquids (DNAPL).

Mr. Humphreys provided his notes on the technical subcommittee meeting held November 6, 2008 (Attachment B-2). He indicated that the RAB's comments on the presentation by AMEC are marked in italics.

Mr. Brooks distributed his response explaining Action Item 3 of the November RAB minutes (Attachment B-3).

Mr. Brooks said that the Navy will transfer a piece of property (federal-to-federal transfer) to the Veterans Administration (VA) and that the VA is holding a public meeting on December 18, 2008. The purpose of the public meeting is to allow public input on the property environmental assessment as part of the National Environmental Policy Act (NEPA) process. Mr. Brooks said that alternatives to the VA's development would be discussed. He added that the preferred development alternatives include a columbarium and an outpatient clinic. Mr. Humphreys asked if the VA was the lead agency in the development. Mr. Brooks confirmed that the VA is the lead agency. Ms. Cook asked where the meeting would be held. Mr. Brooks said that he was not sure and would e-mail the time and place for the meeting to the RAB.

Mr. Brooks thanked Mr. Humphreys and provided him with a certificate of appreciation for his dedicated leadership as the RAB community co-chair from 2006 to 2008.

III. RAB Community Co-Chair Elections

Mr. Humphreys said that Ms. Smith was the sole nominee for the RAB community co-chair during the November RAB meetings. Mr. Humphreys called for a vote on Ms. Smith's nomination. Ms. Smith was voted as the new community co-chair.

Ms. Smith requested time during the next RAB meeting to talk about the document delivery method. She said that a CD copy would be beneficial for some documents. Mr. Brooks said that they could discuss it during the next meeting.

IV. FY09 Projects

Mr. Brooks started the presentation on Alameda Point 2009 Projects (Attachment B-4). Mr. Brooks said that the presentation would outline the Navy projects that are planned for the upcoming year.

Mr. Brooks said that a number of sites at the base are currently at the remedial action (RA) stage or will be in 2009. Slide 2 lists the sites in RA. Mr. Brooks noted that chemical oxidation and recirculation treatment processes are ongoing at Site 14 and will continue in 2009. At Site 17, debris from the northern margin of the Seaplane Lagoon and associated storm drains will be removed. Mr. Brooks noted that a photograph showing the dredging equipment appears on a later slide in the presentation (Slide 12). Mr. Brooks said that he planned a follow-up discussion on chemical oxidation at Sites 26 and 27. Mr. Brooks explained that the metals immobilization was conducted at Site 28 where field activities showed high levels of copper. Mr. Brooks noted that excavation and chemical oxidation are planned at Operable Unit (OU)-1.

Mr. Brooks said that several sites will enter the record of decision (ROD) stage in 2009. These sites are listed on Slide 3. He said that Sites 1 and 2 are landfills, Site 24 is the piers, and that Site 35 is a large site with many different areas.

Slide 4 lists the sites at the proposed plan (PP) stage. Mr. Hoffman asked about the nature of Site 24 and the contaminant issues there. Mr. Brooks replied that Site 24 is the piers area and that sediment is contaminated at the site.

Slide 5 shows the sites in the feasibility study (FS) stage. Mr. Brooks said that the FS for OU-2 has been broken down into OU-A, OU-2B and OU-2C. Groundwater is contaminated at OU-2A but not as contaminated as at OU-2B. ZVI pilot testing will be conducted at OU-2B. Mr. Brooks noted that the ZVI technology was successful in reducing concentrations of trichloroethene (TCE) as high as 85,000 to 95,000 parts per billion (ppb) at three sites at Hunters Point Shipyard, and that a concentration of 500 ppb was achieved within several months.

Mr. Brooks said that the Navy intends to collaborate with EPA's Kerr Laboratory to reduce other contamination at OU-2B. Mr. Brooks said that the project is sponsored by DTSC and Kerr Laboratory, which will assist by evaluating groundwater contamination and proposing a cleanup

method. This area has a high density of underground anomalies, such as high voltage lines, which will pose difficulties for cleanup planning.

Mr. Brooks said that the third phase of the six-phase heating remediation system had started at OU-2C. He noted that soil is now heated to a few degrees above ambient temperatures. Mr. Brooks said that this technique has been successful at other sites and will be tested at OU-2C.

Slide 6 shows other investigations planned at various sites. Mr. Brooks noted that only two sites will require investigations. Mr. Brooks said that the Navy is working with the regulatory agencies and the VA for the federal transfer parcel to investigate various sources of contamination based on the results of the site investigation.

Slide 7 shows the basewide petroleum program. Mr. Brooks stated that the basewide petroleum program at Alameda Point has been successful. He said that the Navy will continue the cleanup at corrective action area (CAA) 3 in 2009. At CAA-C, 9,000 pounds of hydrocarbon are being removed every week. Mr. Brooks said that the Navy will expand the system to increase recovery efficiencies. Mr. Hoffman asked about the technology that is being used for hydrocarbon removal. Mr. Brooks replied that the technology involves vapor extraction and groundwater bio-sparging. Mr. Brooks said that the graph on Slide 8 shows the mass removal rate. He noted that the rate of petroleum removal has decreased with time. Mr. Brooks said that the removal amount is 90,000 pounds.

Mr. Hoffman asked about the difference between a CAA and an OU. Mr. Brooks said that OUs are a collection of similar Installation Restoration (IR) sites with similar types of contamination and treatment. He noted that OU sites are the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites. CAA sites are petroleum-contaminated sites regulated by the Resource Conservation and Recovery Act (RCRA). Mr. Brooks said that chemical oxidation will be used at the new CAA-5B and that “product” is the fuel floating on water. Ms. Smith asked if Building 410 is near OU-5. Mr. Brooks noted that Building 410 is near OU-2A. Mr. Brooks explained the graph on Slide 8. He showed the point on the graph where the exponential line starts to flatten out, indicating that the rate of removal has decreased from 9,000 pounds per week.

The overview of work at Site 17 is shown on Slide 9. Mr. Brooks noted that removal work on the debris pile is half complete and that a large amount of soil needs to be hauled away. Slides 10 and 11 show the photographs of ongoing work at Site 17. Mr. Torrey asked if the slide shows the work at the edge of the Seaplane Lagoon. Mr. Brooks said that it does and that the Navy is working during the lower low tides to avoid disturbing the soil near the water. He noted that most of the work is completed at night. Ms. Smith asked if the soil piles are covered or tarped before workers leave the site. Mr. Brooks confirmed that they are and added that best management practices are in place for storm drains, storm water, and dust control. Slide 12 shows the dredging equipment. Mr. Brooks said that the Jerico Products Company will conduct the dredging.

Slide 13 shows an overview of work at OU-2A and 2B. Mr. Brooks said that representatives from Kerr Laboratory will visit during December to attend the American Geophysical Conference in San Francisco, and the Navy and regulators will have an opportunity to meet with them. Mr. Brooks noted that the Navy will review the results of the ZVI injection pilot test at Plume 4-2. Ms. Smith asked about the chemical contaminants at the site. Mr. Brooks said that TCE, dichloroethene (DCE), and vinyl chloride (VC) are present. Ms. Smith noted that the site exhibited an extensive amount of petroleum and asked if the areas of petroleum and chlorinated solvents were separate. Mr. Brooks said that there is some comingling and mixtures of both.

Mr. Brooks showed the injection area on Slide 14. He said that the iron enters the groundwater and corrodes. It then releases electrons, which are picked up by the chlorinated solvents. The chlorine then is converted into the chloride ion. Mrs. Sweeney asked if Plume 4-1 was near Building 360. Mr. Brooks said it was near the building and also near the corner of Building 163, and that the oil-water separator in that location will also be excavated. Mr. Brooks noted that this work will be discussed in further detail with the RAB in 2009.

Mrs. Sweeney asked about Kerr Laboratory. Mr. Brooks said that Kerr Laboratory is an EPA research center in Oklahoma, which has leading experts on a number of cutting-edge technologies. Mr. Hoffman added that Kerr Laboratory is one of the major EPA research facilities in the country and that it specializes in groundwater. Mr. Brooks said that Dr. Michael Brooks of Kerr Laboratory will be managing this research.

Mr. Brooks showed the OU-2B pilot test area and iron injection location on Slides 15 and 16. Mr. Brooks noted that there will be three soil borings and concentrations in groundwater will be monitored before and after injection. Mr. Humphreys said that the vertical section of the plume shows that the plume is fairly deep and extends under the sea wall of the Seaplane Lagoon. Mr. Brooks agreed. Mrs. Sweeney asked how the groundwater would affect the ZVI treatment process. Mr. Brooks explained that water is needed for the ZVI to enable the iron to corrode. He added that the iron is injected in an impure form. The ZVI treatment also works on soil if there is sufficient moisture. Ms. Smith asked if the solvents were volatile organic compounds (VOC). Mr. Brooks confirmed that the solvents are VOCs. Mr. Simpson asked about the form of the iron. Mr. Brooks replied that it is iron powder and that different types of iron powders are manufactured. Mr. Hoffman asked if hydraulic controls would be in place for these plumes. Mr. Brooks said that the Navy will inject and then monitor the plumes. Mr. Brooks said that he could show data from a similar project conducted at Hunters Point Shipyard that initially involved four borings that gradually extended to 25 borings. Ms. Smith asked if contaminants were spreading. Mr. Brooks said that there was some spreading, which is acceptable. He noted that there is a good monitoring network to observe the spreading. Mr. Hoffman said that he would like to review the monitoring network and the injection project. Mr. Brooks said that this project will be the focus in 2009. Mr. Humphreys noted that ferrous hydroxide is gelatinous, and asked whether the iron would be in the form of a hydroxide. Mr. Brooks said that he thought it was in the form of iron oxide but would confirm the form. Mr. Hoffman noted that earlier projects with iron reduced soil permeability. Mr. Brooks agreed and thought that lowering permeability was a fair tradeoff when the concentration of the plume was reduced by 1,000 times.

Slide 17 shows the overview of the storm drain RA. Mr. Brooks described the utilities infrastructure that was removed from the trench, such as piping and buried concrete, on Slide 18. Mr. Hoffman asked Mr. Brooks to explain the photograph. Mr. Brooks said that the photograph shows a trench and storm drain in the trench being removed. Ms. Smith asked how a new storm drain line will be installed when the old drain line remains attached to the building. Mr. Brooks said that the Navy started work at the upstream so that catchments could be placed at the along the line. Once the old lines are out, the new lines are returned. Mr. Brooks said that the roof drains are connected to the new pipes. Ms. Smith asked if the Navy scanned the roof drains for radiation. Mr. Brooks confirmed that the Navy scanned for radiation anomalies and did not find any.

Regarding the federal transfer parcel investigation, Mr. Humphreys commented that he had heard that the pilots used to drain oil from the planes and let it run out at the site. Mr. Humphreys asked if the Navy conducted comprehensive soil sampling for the presence of oil. Mr. Brooks said that sampling was completed as a part of the polycyclic aromatic hydrocarbons (PAH) investigations. Additional information will be obtained from reviewing the historical aerial photographs to identify the area where oil was drained and investigate the areas extensively. Ms. Smith said that she had seen oily substances in vaults in that area, which forced the military to take action. She was concerned about other vaults in the area. Mr. Brooks said that the Navy will inspect the area to see if any small vaults, washdown areas, or arresting gear structures are present.

Mr. Brooks said that the Navy has a good budget for cleanups in 2009 and expects 2009 to be busy and interesting.

V. BCT Update

Mr. Brooks asked Mr. West to provide the BRAC Cleanup Team (BCT) update. Mr. West said that 2009 will be an interesting year for the petroleum projects. He noted that there are over 300 sites that are currently low priority that will be given more attention in the upcoming year. Mrs. Sweeney asked if he could give an example of such a site. Mr. West said that the Water Board is currently reviewing a proposal for 15 aboveground storage tanks (AST) throughout the base. Investigations started at these sites but were put aside based on other projects and other priorities. Similarly, the Water Board is also reviewing 15 sites with underground storage tanks (UST). Mr. West noted that increased cleanup and investigative work on ASTs and USTs will start in 2009. Ms. Smith asked Mr. Brooks if the Navy has investigated polychlorinated biphenyl (PCB)-containing transformers. Mr. Brooks said that PCB surveys and cleanups have been completed.

Ms. Cook distributed her “end of the year” summary charts (Attachments B-5 and B-6). Ms. Cook said that the chart illustrates the current cleanup and investigations at the base. She noted that the chart was shown in terms of acreage and not by sites because it would be a more effective breakdown.

Chart 1 (Attachment B-5) shows the acreage of all stages of cleanup. It also includes a table that lists all the sites that fall under each stage of cleanup as of December 2008. Ms. Cook noted that half of the acreage is in ROD, post-ROD and in cleanup, ready to transfer, or transferred. The sites that fall under this half of the chart are in or beyond the decision stage of the cleanup and transfer process. She noted that the other half of the acreage is in the investigation stage, such as site investigation (SI), remedial investigation (RI), FS, and PP. The majority of investigations are SIs that involve the federal-to-federal parcels and economic development conveyance (EDC) parcels. Ms. Cook said that the SI will resolve whether the site needs to go into the RI phase or move directly into no further action (NFA) and transfer. She said her estimate would be that 400 acres of the total SI acreage will go to NFA and a small portion would go into the RI or FS. Ms. Cook said that the Navy will review the chart again next year to evaluate the progress made. Ms. Cook said that half of the area is in the cleanup stage.

Chart 2 (Attachment B-6) shows the area where a ROD has been written, the site has been cleaned up, or has been transferred. She noted that only one site has been transferred to date. The chart shows designated reuse for the area. It can be seen from the chart that the majority of the areas are being cleaned up for unrestricted reuse and land-use restrictions will be imposed only for a small area. Mrs. Sweeney asked if the bird sanctuary is included in this chart. Ms. Cook said that the bird sanctuary is still in the SI stage and the chart covers only areas that are in the ROD or RA stages. Mr. Simpson said that the left half of the area in Chart 1 is the whole area represented in Chart 2. Mr. Matarrese asked if unrestricted reuse is from a contamination point of view. Ms. Cook confirmed that it is from that point of view, and added that no environmental restrictions will be placed if the reuse is for residential; however, zoning restrictions may apply. Ms. Cook noted that the agencies and the Navy are trying to achieve a permanent solution wherever possible rather than using restrictions. Mr. Leach asked why the acreages of the two charts do not agree. Ms. Cook said that the total acreage on the left side of Chart 1 should be equal to the total acreage on Chart 2.

VII. Community and RAB Comment Period

Mr. Brooks noted that the next RAB meeting will be held on January 8, 2008, and the RAB technical subcommittee meeting will be held on January 15, 2008.

VIII. Meeting Adjournment

The meeting was adjourned at 7:50 p.m.

Action Items

Action Items:	**Action Item Update**:
1. Question regarding depth and sub-grade volume excavated from the firing range berm and radiological survey of berm material (Question 5 of the August list).	1. Completed.
2. Approval of October RAB Meeting Minutes.	2. Pending.
3. Site 26 Status Report	3. New
4. Maps of Site 1 Sampling Plan from the Technical Subcommittee meeting	4. New
5. Request for Presentations: • OU-5/FISCA IR02 groundwater cleanup • Data gap sampling results of OU- 2A and OU- 2B • Site 2 FS • OU-2C	5. Ongoing

ATTACHMENT A

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING AGENDA

December 4, 2008

(1 page)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

DECEMBER 4, 2008, 6:30 PM

ALAMEDA POINT – BUILDING 1 – SUITE 140
COMMUNITY CONFERENCE ROOM
(FROM PARKING LOT ON W MIDWAY AVE, ENTER THROUGH MIDDLE WING)

TIME	SUBJECT	PRESENTER
6:30 - 6:45	Approval of Minutes	Mr. George Humphreys
6:45 - 7:00	Co-Chair Announcements	Co-Chairs
7:00 – 7:10	RAB Co-Chair Election	RAB
7:10 – 7:30	FY09 Projects	Pat Brooks
7:30 – 7:45	BCT Update	John West
7:45 – 8:00	Community & RAB Comment Period	Community & RAB
8:00 – 8:30	Holiday Potluck	All
8:30	RAB Meeting Adjournment	

ATTACHMENT B

NAVAL AIR STATION ALAMEDA
RESTORATION ADVISORY BOARD MEETING HANDOUT MATERIALS

B-1 List of Reports and Correspondence Received During November 2008. Distributed by Mr. George Humphreys, RAB Community Co-Chair (2 pages)

B-2 Notes on November RAB Technical Committee Meeting. Distributed by Mr. George Humphreys, RAB Community Co-Chair (3 pages)

B-3 Response to Action Item 5; Firing Range Berm. Provided by Mr. Pat Brooks, Navy Co-chair (1 page)

B-4 FY 2009 Projects. Provided by Mr. Pat Brooks, Navy Co-chair (10 pages)

B-5 Alameda Point Investigation and Cleanup- December 2008. Distributed by Ms. Anna-Marie Cook, EPA (2 pages)

B-6 Alameda Point Designated Reuse- December 2008. Distributed by Ms. Anna-Marie Cook, EPA (1 pages)

ATTACHMENT B-1

LIST OF REPORTS AND CORRESPONDENCE RECEIVED DURING NOVEMBER 2008

(2 pages)

Restoration Advisory Board
Documents and Correspondence
Received during November 2008

Documents

1. November 11, 2008, "Draft, No Further Evaluation and Data Gaps Sampling Work Plan for Various Petroleum Sites, Alameda Point, Alameda, California", prepared by Battelle, Columbus for BRAC Program Management Office West.
2. November 14, 2008, "Draft, Data Gaps Summary Report for Installation Restoration Site 25 (Soil at Kollman Circle), Site 32 (Groundwater), and Site 35 (Groundwater in Areas of Concern 1 and 23 and Soil in Area of Concern 6), Alameda Point, Alameda, California", prepared by SulTech (A Joint Venture of Sullivan Consulting Group and Tetra Tech EM Inc. for BRAC Program Management Office West.
3. November 14, 2008, "Draft, Remedial Design/Remedial Action Work Plan Installation Restoration Site 27, Alameda Point, Alameda, California", prepared by Battelle, Columbus, for BRAC Program Management Office West.
4. November 14, 2008, "Final, Petroleum Corrective Action Summary Report, Corrective Action Area 11, Area 37, Alameda Point, Alameda, California", prepared by Shaw Environmental, Inc. for BRAC Program Management Office West.
5. November 14, 2008, "Final, Petroleum Corrective Action Summary Report, Corrective Action Area 13, Refueling Area, Alameda Point, Alameda, California", prepared by Shaw Environmental Inc., for BRAC Program Management Office West.
6. November 14, 2008,"Final, Petroleum Corrective Action Summary Report, Dual Vacuum Extraction, Biosparge, and Pilot Scale Chemical Oxidation Injection Corrective Action Area 4C", prepared by Shaw Environmental, Inc. for BRAC Program Management Office West.
7. November 21, 2008, "Pilot Test Workplan for Installation Restoration Site 28, Alameda Point, Alameda, California, Replacement Figure 6, Replacement Figure 1 for Appendix A, and Replacement CD", prepared by Innovative Technical Solutions, Inc. for BRAC Program Management Office West.
8. November 17, 2008 (Received November 25, 2008), "Draft, Alameda Basewide 2008 Annual Groundwater Monitoring Report, Alameda Point, Alameda, California", two volumes, prepared by Innovative Technical Solutions, Inc. BRAC Program Management Office West.

Correspondence

1. October 20, 2008 (Received November 13, 2008), "Deficiencies with CERCLA Conceptual Site Model for Area 1a of IR Site 1, the 1943-1956 Disposal Area, Alameda Point, Alameda, California", letter from Ms. Debbie Potter, Alameda Reuse and Redevelopment Authority to Mr. George Patrick Brooks, BRAC Environmental Coordinator, BRAC Program Management Office West.

2. November 20, 2008, (Received November 26, 2008), "Draft Technical Memorandum for Data Gap Sampling at Operable Units 2A and 2B for Alameda Point Dated September 10, 2008", letter from Ms. Anna-Marie Cook, U. S. EPA, Region IX, to Mr. Pat Brooks, BRAC Program Management Office West.
3. November 20, 2008, "Final Feasibility Study Report IR Site 2, West Beach Landfill and Wetlands, Alameda Point, Alameda, California, October 2008", letter from Ms. Xuan-Mai Tran, U. S. EPA, Region IX, to Mr. George Patrick Brooks BRAC Program Management Office West.

ATTACHMENT B-2

NOTES ON NOVEMBER RAB TECHNICAL COMMITTEE MEETING

(3 pages)

Notes on RAB Technical Committee Meeting
November 6, 2008 @ 5:30 pm
Prepared by George B. Humphreys

A presentation was made by Peter Guerra, Russ Bunker, and Dan Kwiecinski from AMEC (the Navy's consultant/contractor for Site 1). The sampling plans were discussed for sub-areas of Site 1. In the absence of any handout, the following summary was prepared so that the RAB would have a record of the discussions.

Area 5-Beach Areas

A total of 60 borings will be made at 50-ft intervals along the beach areas. Two samples will be taken from each boring, for a total of 120 samples.

Humphreys asked the depths at which the samples will be taken. The answer was that samples will be taken at 1 ft and 2 ft below the beach surface. Humphreys asked why the samples were so shallow. The answer was that the Navy told the contractor that they only have to clean up the area to a depth of 2 ft.

Comment: *Because the solvent/fuel plume in area 1a is located at depths between 3 and 15 ft below the ground surface in the landfill area, and the beach is about 4 ft lower, any contaminants migrating from the landfill area 1a could be as deep as 11ft below the beach surface. Therefore, samples should also be taken at greater depths (say 5, 10 and 15 ft) along the beach.*

Humphreys noted that there may be lead mixed in the beach soil from lead shot thrown up onto the beach by wave action from the offshore skeet range. The consultants said that the analytes will include PAH's, semi-volatiles, and Title 22 metals.

Humphreys asked whether the soil samples from the beach area would be tested for radiological contaminants. The consultants stated that a radiation survey instrument would be used, but that the soil samples will not be submitted for laboratory analyses of radioactive contaminants. The survey instrument will not be capable of detecting levels as low as the rad-removal criterion.

Humphreys said that samples should be taken under the barges and riprap. The consultants said they are not planning on sampling under the riprap. They stated that the boundary of site 1a is the edge of the "revetment".

Comment: The waste cell where the firing range berm was located was shown on aerial photographs within a few feet of the edge of the riprap and the site boundary fence. Further, the exploratory trench in that cell showed "all rad contaminated". Thus, it is plausible that there may be rad-contaminated soil under the riprap and/or in the beach opposite the berm.

Humphreys suggested that there should be a magnetometer or ground penetrating radar survey to determine the location of the buried barges paralleling the shoreline. The consultants asked why we should be interested in that. Humphreys said to determine the construction feasibility of the proposed cutback from the beach. The consultants said that

they have determined the depth of the barges from earlier geophysical surveys (of unspecified types) and that some barges are quite deep. The consultants said that the barges are made of concrete. Humphreys said that might be correct, but that the exposed barges appeared to be made of steel.

The consultants noted that there is a data gap of surface elevations in the beach area. There were offshore bathymetric depth surveys at depths of 5 ft and greater below sea level. Further, there have been land surveys starting at 3 ft above sea level. They plan to survey elevations in the range from 5 ft below to 3 ft above sea level.

Area 1a

The Contaminated Plume

Geomatrix investigators Mary Morkin and Murray Einarson, while at the University of Waterloo, studied this plume approximately 10 years ago. The groundwater level was 3 to 8 ft below the ground surface. The contamination was in fingerlike shapes. The plume was held up at 10 to 15 ft below the surface, possibly because the groundwater gets saltier below that depth.

One of the objectives of this sampling investigation is to define where the funnel and gate system is located. An EM train and magnetic survey will be used to look for buried debris. The location of the funnel and gate will be used to adjust the plume map.

Eight transects 200 ft long will be made in the plume area. Thirty groundwater push samples will be taken. A direct-push UVOS tool will be used. A membrane interface tool will be used to finalize the details of the groundwater plume. They are interested in finding out whether the fingers of contamination originate farther to the east. The probe technique is sensitive to benzene (a fuel component). The consultants confirmed that Murray Einarson's previous investigation showed both solvents and non-aqueous liquids (i.e. gasoline) in the plume.

The existing monitoring wells will be decommissioned. They will install a new monitoring well system.

Jean Sweeney asked about the source of the groundwater contamination plume. The AMEC consultants said that there was an aircraft maintenance area in the vicinity of the plume.

Joan Konrad said that SunCal showed wetlands in Area 1a. Pat Brooks responded that the general plan is recreational. Joan Konrad asked what constraints would be placed on land use. No answer was given.

Soil

Ten soil samples will be made in Area 1a. (It wasn't stated the depths at which these samples would be taken or whether the samples will be analyzed to characterize contamination). There were two studies in the past looking at the thickness of the soil cover. They started hitting debris at 2 to 2 ½ ft. The debris consisted of glass, discolored soil and rubber drums. A soil cover was cast over the debris to a depth of 6 inches to 2-½ ft in thickness.

Comment: The consultants made several references to debris and waste materials in the waste cell area 1a. It was obvious that the Navy has not accepted the City's position that there no longer are landfill wastes in Area 1a. It also was apparent that the Navy has not accepted the City's recommendation that Area 1a be transferred to Site 32 and thoroughly characterized.

Burn Area 1b

Eleven borings will be taken in the burn area to define the limits of wastes in this area. The borings will be to depths of 15 to 20 ft. Ninety samples will be taken to define the vertical and horizontal extent of the contamination. Rotosonic drilling will be used to let them see a fairly continuous core. Fred Hoffman commended the consultants for their plan to thoroughly characterize the burn area.

Perimeter Areas (2a, 2b, 3a, and 3b)

Seventeen trenches will be cut around the perimeter of Area 1a. The purpose of this trenching is to define the area of the landfill cover (presently shown as approximately 20 acres).

Comment: No mention was made of the depth of this trenching. Also, no mention was made of taking soil samples or analyzing the samples for contaminants. The proposed sampling plan apparently is not intended to characterize the wastes within Area 1a as requested by the RAB and the City.

ATTACHMENT B-3

FIRING RANGE BERM ACTION ITEM 5

(1 pages)

Firing Range Berm Action Item (completed 12/04/08)

Q5) During the TCRA, what were the volumes of soil excavated from the firing range berm? What volume of lead-contaminated soil was disposed of offsite and where did it go? How far below grade did the excavation go? What was the volume of below-grade material that was excavated and removed (a former Navy fighter pilot stationed at Alameda said that they took their Convairs onto downward sloping ramps and test fired their 20-mm cannons into a below grade pit. Was the soil removed from the firing range berm surveyed for radioactivity. (Note that the exploratory trench in the area showed "all rad contaminated".)

A5) Volume of soil excavated and removed including disposal locations:

The firing range berm was approximately 15 feet high by 40 feet wide by 200 feet long.
Approximately 1,600 CY of soil from the Firing Range Berm was disposed of as RCRA Hazardous Waste for lead at Kettleman Landfill.
Approximately 2,600 CY of soil from the Firing Range Berm was disposed of as non-RCRA Hazardous Waste for lead at Kettleman Landfill.
Approximately 100 CY of soil from the Firing Range Berm was disposed of as non-Hazardous at Altamont Landfill.

The excavation did not extend appreciably below the existing ground surface, so very little of the volume of soil excavated was from below grade. After the excavation was completed, a geophysical survey was conducted and it did not suggest the presence of additional metal projectiles.

All material was screened for radioactivity before disposal. Soil with high screening levels was placed in bins for disposal as LLRW.

ATTACHMENT B-4

FY 2009 PROJECTS

(10 pages)

Welcome

Alameda Point
2009 Projects

RAB Meeting, December 4, 2008

Remedial Action

- Site 14 (Chemical Oxidation)
- Site 17 (Dredging)
- Site 26 (Chemical Oxidation)
- Site 27 (Chemical Oxidation)
- Site 28 (Metals Immobilization)
- OU-1 (Chemical Oxidation and Excavation)

Record of Decision

- Site 1
- Site 2
- Site 24 (Draft Final)
- Site 30 (Soil)
- Site 35 (Excavation at AOCs 3, 10 and 12)

Proposed Plans

- Site 2
- Site 24

Feasibility Studies

- OU-2A
- OU-2B
  - Pilot testing (zero-valent iron injection)
  - Removal action (with EPA's Kerr Laboratory)
- OU-2C
  - Removal action (six-phase heating)
- Site 34

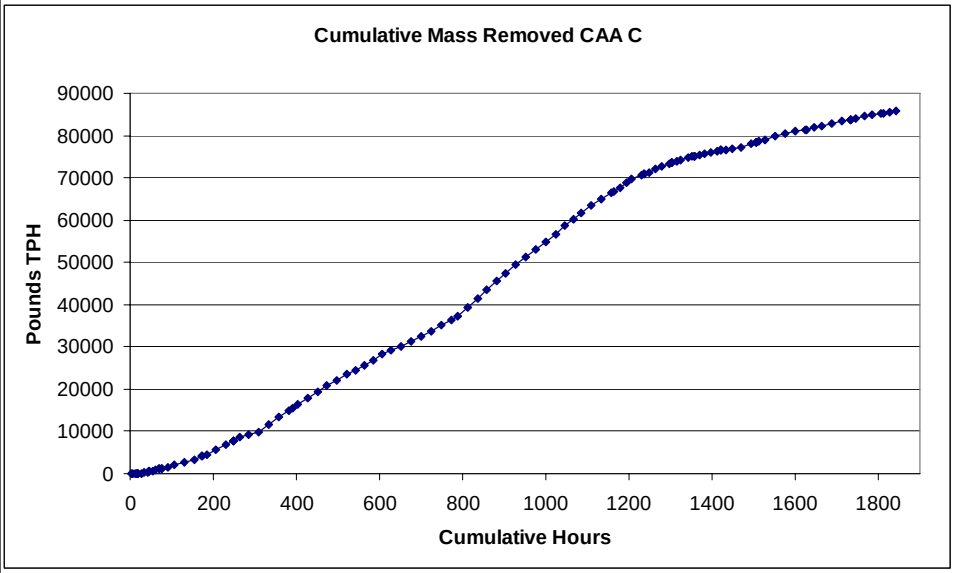
Investigations

- Site 32
  - Define nature and extent of radium in soil
- Fed Parcels
  - Follow on work from initial Site Investigation

Basewide Petroleum

- Continue cleanup at CAA-3
- Expand system at CAA-C
- Chemical oxidation at CAA-5B
- Product removal near Building 410

Corrective Action Area - C



Site 17

- **Complete debris piles removal**
- **Complete disposal or recycling**
- **Finalize remedial dredging design and begin fieldwork**

Site 17

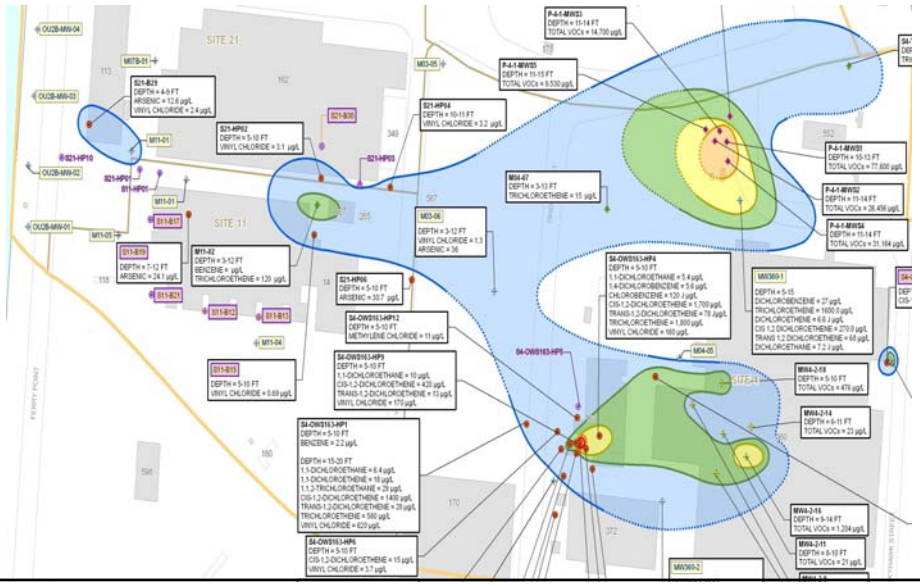
Site 17

Dredging Equipment

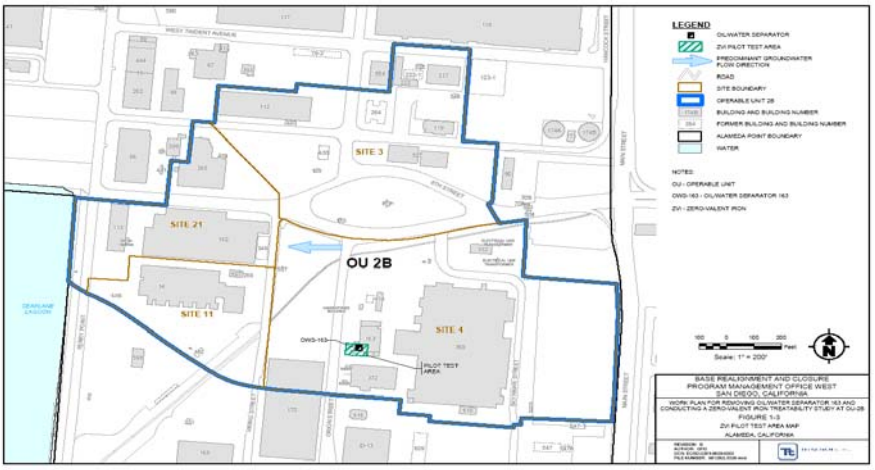
OU-2A / 2B

- **Plume 4-1: Evaluate cleanup technologies with USEPA Kerr Laboratory**
- **Plume 4-2: Conduct zero-valent iron injection pilot test**
- **Complete Feasibility Study for OU-2A and OU2-B**

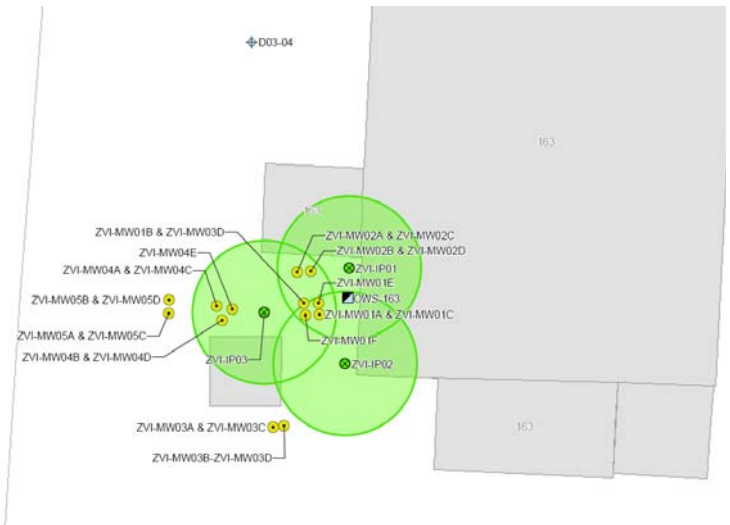
OU-2B



OU-2B Pilot Test Area



Iron Injection



Storm Drains

- Complete storm drain removal and replacement
- Complete disposal or recycling

Storm Drains

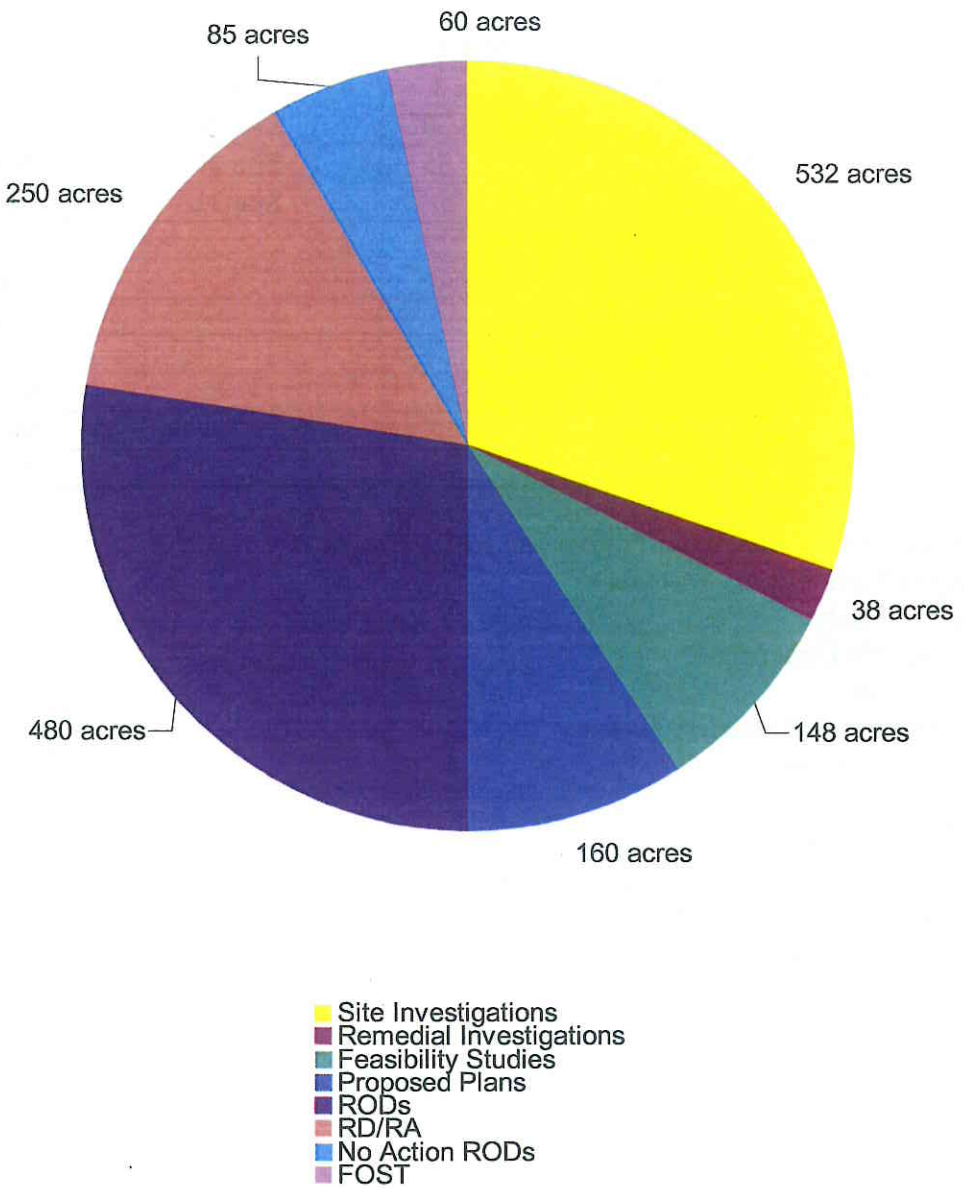
That's all folks

ATTACHMENT B-5

ALAMEDA POINT INVESTIGATION AND CLEANUP - DECEMBER 2008

(2 pages)

Alameda Point Investigation and Cleanup - 12/08



Alameda Point Investigation and Cleanup
December 2008

SIs	RIs	FSs	PPs	RODs	No Action RODs	RD/RAs	TCRA	FOST
TP FED-1A	Site 32	Site 3	Site 2	Site 1	Site 15	Site 6	Site 1	PBC-1
TP FED-2B	Site 34	Site 4	Site 24	Site 30	Site 20	Site 7	Site 2	
TP FED-2C		Site 5		Site 35	Site 29	Site 8	Site 5 (2)	
WBS and BWB		Site 9			Site 31	Site 14	Site 10	
TP EDC-12*		Site 10				Site 16	Site 17	
TP EDC-17*		Site 11				Site 17	Site 32	
		Site 12				Site 25		
		Site 13				Site 26		
		Site 21				Site 27		
		Site 22				Site 28		
		Site 23				OU 5		

*	Portions of transfer parcel will move into RI for further evaluation
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
PBC	Public Benefit Conveyance
PP	Proposed Plan
RD/RA	Remedial Design/Remedial Action
ROD	Record of Decision
SI	Site Inspection
TCRA	Time Critical Removal Action
TP EDC	Transfer Parcel Economic Development Conveyance
TP FED	Transfer Parcel Federal Agency
WBS & BWB	Western Bayside and Breakwater Beach

ATTACHMENT B-6

ALAMEDA POINT DESIGNATED REUSE- DECEMBER 2008

(1 pages)

Alameda Point Designated Reuse December 2008